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IS THE ABSTRACT UNREAL?

We frequently hear to-day statements like this: such and such a thing is an abstraction only, not a real thing. This has been said of scientific laws, of mathematical concepts, of such entities as force and matter, of thinking, feeling, acting, of anything objective or subjective, the external physical world or the psychical world. Indeed nothing is sure of escaping this metaphysical condemnation, except the great whole of the universe, which perhaps is too unwieldy for us to profit much by its reality.

Against an accusation like this one feels at first as helpless as the innocent victim accused of witchcraft in Salem. There seems to be no way of defending oneself, because, whatever one says, he is liable to be told that his very words are abstract and general and therefore do not represent the facts as they really are, the living concrete whole of experience. And this may apply to the last words as well as to anything else. *Life, whole, experience, concrete,* these must suffer the same fate as any other words. The doctrine that the abstract is unreal carries with it a belief in the inherent faultiness of the human mind. We congratulate ourselves to-day on having outlived the mediæval asceticism which taught that the body vilified all spiritual impulses; but is it not as bad or worse to teach that the mind, with a taint of original sin, perverts and falsifies the real by thinking about it? Surely the modern philosopher, however committed by his words to this view, would be secretly pleased to regard every correctly formed description of what we observe in the external world as finally true so far as it goes. Incomplete it may be, but must we add to this the vice of misrepresentation?

Moreover, it is a curious fact, which tends to arouse a little suspicion, that the most ardent defenders of this view, those 'scientfic' philosophers of whom Professor Pearson seems to be the type, who profess at every turn their scorn of metaphysics and metaphysical abstractions, grasp eagerly at the support given them by this most Hegelian of Hegel's doctrines. If the enemies of metaphysics welcome such a view, is it not time for the metaphysician to examine its nature?

Such are the motives which lead me to undertake an examination of the doctrine that the abstraction is, as such, unreal. I shall try to show that the doctrine is based on a very elementary mistake in reasoning; that there is no logical basis for asserting that an isolated thing once given to us as part of a whole, can not exist *unchanged* in complete independence of that whole; and that, on the other hand, there is strong evidence that such a thing *can* so exist. The argument will have two parts: the first part will try to show that our more or less abstract description of particular sense-facts does not disagree with these facts, has no misrepresentation or contraction in it, though it is often only partial;[1] and the second, that the parts abstracted may and probably do exist sometimes in isolation, and that therefore in such cases the abstraction by itself is just as real as the whole from which it is abstracted.

In the first part I shall criticize Mr. Bradley's argument[2] that abstract description falsifies the particulars of sense, as his seems to me the most straightforward defense of this view in English. Mr. Bradley brings up the issue in discussing analytic judgments of sense (*e. g.*, 'this apple is red'). He accuses them of falsity because they are partial and abstract. He says:[3] 'It is never more than an arbitrary selection which goes into the judgment.' 'We sunder and divide what appears to us as a sensible whole.' 'It is precisely this coming short of fact and stating a part as if it were the whole which makes the falseness of the analytic judgment.' What appears is $X = abcedfgh$; our judgment is only $X = a$ or b. 'But *ab* by itself has never been given and is not what appears.' 'It was *in* the fact and we have taken it out. It was *of* the fact and we have given it independence. We have separated . . . mutilated the given.' And again,[4] 'It is an immense assumption to conclude when a fact comes to us as a whole that some parts of it may exist without any sort of regard for the rest.' Now of course it is false to say that a part *is* identically the same as the whole. But does a simple judgment like the above, which predicates the abstract part *red* of the whole thing *rose*, do this? If we stick to the actual words used, the judgment does no such thing. Does 'the apple is red' say explicitly, 'red is the whole of the apple, all there is about it'? If the original judgment had been, 'the apple is red and nothing more,' it would be quite different. If *red* is the same as *red only*, why keep this word *only* in our language? Or if you urge that the judgment does not indeed *say* 'only,' but implies it, the answer is a denial. If you

[1] Cf. Hobhouse, 'Theory of Knowledge,' Ch. on Imagination, passim.
[2] 'Principles of Logic,' Ch. II.
[3] *Op. cit.*, p. 94.
[4] *Op. cit.*, p. 95.

insist on bringing in meaning, we should all certainly say the judgment means, 'the apple is red and something else besides.' What we need here is a study of the meaning of *is*, and that study must be based on the way *is* is actually used, not on a preconceived theory that it means perfect identity. And who thinks, when judging, of making the 'immense assumption' that the red of the apple 'exists without any sort of regard for the rest'? Because we do not say it exists with the other qualities, are we to be understood to say it does exist without them? Because I did not just now say, 'there is a place called England,' do you infer that I denied England's existence? This kind of reasoning is bad logic. But formally it says, because A is in relation R with B it is not in relation R with C. We do not allow mathematicians, scientists and 'plain men' to reason thus—why should we allow logicians and metaphysicians? As for the 'mutilation,' you might as well say you mutilate a man when you take hold of his arm, because you do not at the same time take hold of his whole body.

The more or less abstract description of the judgment does not, then, seem to falsify or contradict what it describes. We come now to the second half of our task. Is the isolated part, aspect, or element necessarily unreal, unable to exist by itself? Here even Mr. Hobhouse, we must think, errs and falls under the sway of the traditional view. For there is the same bad logic here as in the argument of Mr. Bradley. If it is an unprovable assumption that the abstract is the whole truth, it is an equally unjustifiable assumption that the thing abstracted could not exist by itself, apart from the context which it now has. Mr. Hobhouse says,[5] 'the abstraction . . . can be realized only as a feature of a concrete whole;' and again,[6] 'what is normal and necessary is the formation of abstractions along with the knowledge that only the whole can be the reality.' And Mr. Ward also, if I understand him correctly, argues that because the external world and the scientific description are abstract aspects of experience they can have no reality apart from and independent of our experience. Let us state this reasoning formally in order to see its logical character. Call the abstracted part or aspect A, the rest of experience B, and the real C. Then the argument runs thus: A with B is C, or, if A is with B it is C. This we all admit, of course. Nobody denies that the whole is real; the only question is, are the parts by themselves also real? Now from the above the conclusion is drawn: if A is not with B, it is not C; the part A abstracted from its context B is not real. Any student of elementary logic knows better than to reason thus. What possible ground appears

[5] 'Theory of Knowledge,' p. 202.
[6] *Op. cit.*, p. 198.

for concluding that the part abstracted may not exist all alone by itself? If the context *B* were essential to the meaning of the part *A*, the case might be different, but that is a quite unjustifiable assumption. It is a curious fact that, while those who condemn the abstraction often do so on the general ground that the meaning of every fact depends on the presence and meaning of every other in the universe, they do not usually undertake to show this for particular cases. It is just when you come to particular cases that this general rule itself, again and again, is seen to be so very abstract that it cannot be made to work. In particular cases, a given part *A* often shows its character to be quite independent of its context *B*. A given physical object remains, as far as we can possibly observe, constant through many different perceptions of it. My thought of a triangle remains in many details exactly the same, as far as all empirical evidence goes, whether I am in the city, in the woods or on the sea, or in a state of abstract attention where I perceive no outer world at all. So far as we can see, a certain visual image often remains before the mind practically constant in nature throughout ever so different external surroundings. Must we not, then, say that the very meaning of that image is independent of the physical surroundings? The doctrine that the meaning of everything depends on that of everything else is, I venture to think, utterly vague speculation, incapable of proof. It is just an *a priori* assumption, whose greatest attraction is its generality. And experience shows us case after case where there is no proof of its applying, where there is revealed to observation perfect constancy in the midst of change.

We have objected so far to the logical soundness of the position that the isolated part is necessarily unreal. We have seen no *a priori* ground for such decision, and the empirical grounds urge rather the opposite conclusion. Many presentations are given to us independent of each other, each remaining constant while the rest vary; and this *suggests*—I do not say *proves*—that their mutual independence may be so thorough that each could exist alone. But even if sufficient reason has not yet been advanced to demonstrate this, we are at least warranted in saying that, on *a priori* logical grounds, the impossibility of isolated real things cannot be demonstrated. Mr. Hobhouse's 'knowledge that only the whole can be the reality,' is just the expression of a very widespread assumption. The part is of course often in some measure affected by the whole which surrounds it, but much that is in that part remains unaltered, so far as we can see. And if it remains unaltered in different surroundings, then it *might* remain the same if all its surroundings were obliterated. To apply this to the idealistic problem: the psychical world might consistently enough be nearly what it is without any external

world, and conversely the external world might to a large extent remain unaltered by the entire disappearance of consciousness.

But there is, one must believe, another basis for the wholesale condemnation of isolated parts. We feel that the real is what is given in experience; and since external and internal, part and whole, thinking and doing, are given to us together, we feel that it would be false to say that any one of these existed apart from the rest. Matter and force are given to us bound up with motion, heat, resistance, and so we say that the former are not real things by themselves. And no doubt one must gladly welcome this tendency of modern thought to insist on completeness of view, and to search for a possible underlying unity. I am not arguing against the belief that much in nature actually presents a big general unity. I simply wish to guard against the narrowness which says that this *must* be a complete account of the matter. We have no right to conclude, because things come to us bunched together, that they have not still enough individual freedom to dissolve that union. The real is just a little larger than the present given; it includes also potencies which underlie the immediately experienced. What these potencies are, whether they display independent activities on the part of the details of the given, observation and analysis of that given alone can decide. It is simply bad logic to assume at present such a monistic view as would deny the *possibility* of many parts existing, with unchanged characters, in isolation from the wholes in which they first appeared to us. And on the other hand, there is found by observation and analysis strong evidence of the ability of many things to exist without the support of all of their environment. And even further, abstraction itself is a part of our experience. We can entertain only a limited subject-matter in our mind; the given is itself isolated, for I see but a small portion of the world with my imperfect eyesight. Yet I do not for that reason deny reality to what I see, nor should I do so if on journeying to the limits of my field of vision I found that sight failed beyond a certain circumference, where it had continued in my previous journeys over the same ground. There is, therefore, far from being in the nature of given experience any reason against the possibility of the isolated part being real; there is, perhaps, evidence in favor of that possibility. Let us, then, be more modest in our scorn of the abstraction; let us admit that the small things, the finite parts, may possibly be, in and of themselves, just as real as, besides being somewhat more useful to us than, the great whole of which they first appear to us as parts.

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OF CONSCIOUS EFFICIENCY

Sec. 1.—It is generally agreed that what we call interaction takes place between some parts of the nervous system and others: the capacity of a nervous part to act thus, constitutes what we call its efficiency.

In previous articles of this series, we have seen reason to believe that all parts of the nervous system are at all times active so long as they are alive, and that they are fundamentally of the same nature; and, if this is true, then it would appear that all parts of the nervous system must be reciprocally efficient; the activity in any one special part would not be what it is but for the influence of the activities in all other parts of the system; nor can the activities in these other parts of the system remain unaffected by the activity of this special part. This carries with it the conclusion that in any given neururgic pattern, the neururgic emphases and the undifferentiable neururgic mass against which these emphases are contrasted, display a reciprocal efficiency.

But if the theory of a thoroughgoing neururgic and noetic correspondence which we are considering in these articles is valid, then we should be able also to say that in any given noetic pattern, the noetic emphases and the undifferentiable noetic mass against which these emphases are contrasted must also display a reciprocal efficiency; provided it is agreed that anything like efficiency appears within consciousness, a point to which we refer later. That is, the field of attention and the field of inattention must be reciprocally efficient. But the field of attention in any moment is what we usually speak of as the presentation of that moment; and if it is true, as we have argued in the preceding article, that the field of inattention is what we call the Self, we may then say that the Self and the presentations to the Self are always reciprocally efficient.

Sec. 2.—But it may be questioned whether we are justified in speaking thus of an efficiency within consciousness, and to this question we may well turn before going farther. When we do so we at once perceive that in fact the notion of efficiency is gained only as the result of our introspective experience; it is a datum of what we call subjective observation, and so far as we apply it to objects in the outer world, we do so by a process of interpretation. We attribute it to objects in the outer world because we note a close analogy between events in the outer world series as given within consciousness, and events in the purely subjective, or what we may call the not-in-the-outer-world, series. As Dr. Geo. W. Knox well puts it,—if we awakened to full consciousness in an hermetically sealed glass receptacle, in the midst of a forest in a wind storm,

and were without any tendency to move our eyes, or to accommodate them to moving objects, then the falling leaves about us would appear as a mere succession of phenomena within consciousness. But were we suddenly removed from our glass receptacle, at once, in connection with our reaction to the wind-blown leaves, we would gain the experience of efficiency. This experience it is which gives us the basis for the attribution of a like characteristic to objects in the outer world with which we find ourselves confronted. We ascribe efficiency to these objects in the outer world as a counterpart of the efficiency which we experience subjectively; and we then extend this attribution to particular objects in the outer world as they relate to others.[1]

Sec. 3.—The question, then, is not whether we are justified in attributing efficiency to consciousness, but rather whether we are justified in attributing to objects in nature this efficiency which we discover in our conscious experience. I shall not take space here, however, to consider this point, inasmuch as this question is answered affirmatively by practically all men, learned and unlearned. This attribution is indeed fundamental to our conception of the existence in the physical world of systems of interactive parts, of which systems the nervous system with which we are here concerned is one type.

I think, then, that we may assume that in any given neururgic pattern, the neururgic emphases and the undifferentiable neururgic mass are always reciprocally efficient; and, assuming the validity of the theory of a thoroughgoing neururgic and noetic correspondence, that the field of attention (the noetic emphases) and the Self, *i. e.*, the field of inattention (the undifferentiable noetic mass), are always reciprocally efficient.

This thesis carries with it certain results of great interest, some of which we shall discuss later in this and in the next article of this series; but before considering these, I shall ask the reader to turn with me to another closely related problem.

Sec. 4.—In the light of this conception of a thoroughgoing reciprocity of neururgic efficiency, and of a corresponding thoroughgoing reciprocity of noetic efficiency, let us attempt to state what we mean

[1] It is interesting to note in this connection that Professor B. L. Gildersleeve tells us that his study of the Greek language, which was so clear an expression of the innermost of psychic experiences, convinces him that 'effect to the natural man means will. The neuter has no nominative because it has no personality,—no will.' I quote here, and later on, from personal letters which Professor Gildersleeve has kindly allowed me to make use of. How the object affected may be subsumed under the object effected, he has indicated in his 'Later Grammar,' § 329 note. *Confer* also the *American Journal of Philology*, II., 89.

by the common observations, that under certain conditions the 'body acts upon the mind,' and that under certain conditions the 'mind acts upon the body.'

In order to simplify our discussion we must first note that all action of a man's body, as the result of its contact with the physical world, is traceable back to activities within his bodily system, of which activities those within his nervous system are of preeminent importance. Taking this for granted, we may restate the every-day observations above mentioned in the following terms:

1. Some activities in the nervous system, due to the reception of energy from the physical environment of the system, affect the nature of consciousness.

2. Some states of consciousness affect the activities of the nervous system in a manner which brings about adjustments of our bodily organs which indirectly affect objects in the physical world.

But these facts may be still differently stated in terms of our theory of a thoroughgoing neururgic and noetic correspondence, as follows:

1. The first case may be stated thus:

A given noetic pattern β now existing would not be what it is but for the previous existence of a neururgic pattern A.

But this previously existing neururgic pattern A had corresponding with it a noetic pattern α; although in retrospect α is not prominent, while A is. And this now existing noetic pattern β has corresponding with it a neururgic pattern B, which, however, is not prominent in retrospect, although β is.

Hence what we are really saying is that a given noetic pattern β now existing (and its corresponding neururgic pattern B) would not be what it is but for the previous existence of a noetic pattern α (and its corresponding neururgic pattern A). This surely is not difficult to believe.

In the case here considered, in retrospect, the series A-and-β is in the field of attention, while the series α-and-B is not. Consequently, we have before us in the attention the neururgic pattern A followed by the noetic pattern β, with a sense that A was efficient in relation to β.

2. The second case may be stated thus:

A given neururgic pattern B now existing would not be what it is but for the previous existence of a noetic pattern α.

But this previously existing noetic pattern α had corresponding with it a neururgic pattern A, although in retrospect A is not prominent, while α is.

And this now existing neururgic pattern B has corresponding with it a noetic pattern β, which, however, is not prominent in retrospect, although B is.

Hence what we are really saying is that a given neurugic pattern *B* now existing (and its corresponding noetic pattern β) would not be what it is but for the previous existence of a neurugic pattern *A* (and its corresponding noetic pattern α). This surely is not difficult to believe.

In this case, in retrospect, the series α-and-*B* is in the field of attention, while the series *A*-and-β is not. Consequently we have before us in attention the noetic pattern α followed by the neurugic pattern *B*, with a sense that α was efficient in relation to *B*.

Sec. 5.—But some one may feel that what we have just said does not touch the main point that appears to the average man to involve difficulty. We are not so much interested in case 1, where the 'body appears to act upon the mind,' as in case 2 where the 'mind appears to act upon the body.' And in relation to this case 2, we find our difficulty only in certain of our experiences. We do not find a problem where a noetic emphasis α, as in sensation-perception, affects a following neurugic pattern *B*, as in the resulting activity of the reactive organs; for we are ready to assume the existence of a neurugic emphasis *A* corresponding with the first occurring noetic emphasis α, and are equally ready to agree that *B* is what it is because of the efficiency of the previously existing *A*. What we ask for is an explanation of the action, upon the following neurugic pattern, of the Self which is not a noetic emphasis. Let us then consider the case where the Self seems to be efficient in determining the form of a certain neurugic pattern.

Under the view maintained in the last article, the Self, as the field of inattention, is part of the first-mentioned noetic pattern α, and had corresponding with it an undifferentiable neurugic mass within the corresponding neurugic pattern. What we really say in such a case, then, is this: a given neurugic pattern *B* now existing (and its corresponding noetic pattern β) would not be what it is but for the existence of the neurugic mass in a previously existing neurugic pattern *A* (and the field of inattention, or Self, in its corresponding noetic pattern α).

This surely is not difficult to comprehend if our theory of a thoroughgoing neurugic and noetic correspondence is valid, and if there is, as we hold, at all times a thoroughgoing reciprocity of efficiency between all parts of the neurugic and noetic systems.

Sec. 6.—Now let us turn again to the consideration of the corollary of the theory of a thoroughgoing neurugic and noetic correspondence above referred to, *viz.*, that the field of inattention and the field of attention,—the Self and the presentations to the Self,—are fundamentally of the same nature, and being systemically related, are always reciprocally efficient. This means (1st) that

in every moment of consciousness the form of noetic emphasis determines some measure of alteration in the nature of the undifferentiable noetic mass, *i. e.*, the field of inattention, or in other words, the Self; and (2d) that in every moment of consciousness the form of the noetic emphasis is more or less determined by the efficiency of this field of inattention,—of the Self. Let us consider each of these points briefly.

Sec. 7.—Evidences of changes in the nature of the Self, due to the influence of noetic emphases, or presentations, can of course not be gained by reference to introspection, for the realm of introspection is within the field of attention, and the Self, under our hypothesis, is not presentable in attention.

But we may hope to gain indirect, objective, evidence of this action of the presentation upon the Self by noting cases in which it is clear that presentations are given to the Self of a man under observation, and considering the nature of his Self as indicated by his mode of action. We may observe, in other words, the evidence of a change in what we call the man's character, as the result of emphases which we have reason to believe are given in his consciousness.

Such evidence is before us at all times in the actions of men who are utterly lacking in self-consciousness,—whose fields of attention contain no empirical egos, but merely the presentations to the unpresentable Selves. For example, observing a man writing steadily and quietly at his table, all intent upon the visual elements before him, unmindful of the striking clock, or of the rumble of loaded wagons on the street, we suddenly see him stop writing, rise from his chair, and go to the window with the remark, 'Did you hear that clap of thunder?' Here the Self of one form which was occupied with visual impressions and the thoughts connected with them, suddenly becomes a Self of another form reacting to aural stimuli. If we judge by their reactions, as we always must judge, the two Selves at the two moments are manifestly diverse, and this diversity is clearly due in large part to the diversity of the emphases within the whole of consciousness of the two moments.

Some reader at this point may feel inclined to question our right to speak thus of the man's diverse Selves, but I shall ask him to waive his objection at present, awaiting the study of this point in a later article in which I shall consider the mutability of the Self.

Sec. 8.—We may turn, then, to our second point made above, to which I shall devote the remainder of this article, and which will appear of importance in an article to follow.

Under the theory here examined, in *every* moment of consciousness, the form of the noetic emphasis is more or less determined by

the efficiency of the Self. To take the simplest kind of an example: A complex noise reaches me from the street as I write, and I find certain of the sounds so emphasized as to suggest the rhythmical beating of drums. When I study the noise, however, I find no one set of sounds predominant, nor do I discover any noticeable rhythm in their occurrence. Something from without the given presentation must have served to emphasize certain tones, and must have given the rhythm to the succession of sounds. And clearly this influence must have been within consciousness; and having been within consciousness and yet not in the field of attention, it must have been within the field of inattention, *i. e.*, within the Self.

I do not need to point out to the readers of this JOURNAL that we are here considering the great fact of mental assimilation, nor that this assimilation is always discriminative in character; but I wish to lay stress upon the point that this discriminative characteristic of assimilation is due to the nature of the conscious system as apart from the noetic emphasis, and existing at the time the noetic emphasis occurs; and that this discriminative characteristic is not determined by the nature of the emphasis in the field of attention, but rather by the nature of that part of consciousness which is apart from the field of attention, namely, the Self.

This may seem to the reader altogether too commonplace to refer to in the pages of a JOURNAL devoted to expert work, but I shall ask him to note that once having acknowledged that the Self is, at any time, efficient to modify the form of the noetic emphasis within the field of attention, then, if the thesis here presented is valid, it must do so in some measure at all times. That is, the Self always, and without exception, has its part in the determination of the form of the noetic emphasis in the field of attention.

But, if this is true, it certainly shows us that the distinction between active and passive,—voluntary and involuntary,—voluntary and spontaneous,—attention, which is made much of in these days by many psychologists of high standing,[2] is a misleading one. It may be a distinction of some small value in descriptive work, but it can not be of any fundamental importance.

The Self must *always* have its part in the determination of the nature of the noetic emphasis. At certain times, this part played by the Self is perfectly clear, when, for instance, two opposed and incompatible emphases appear in attention, and when the Self acts to emphasize the one and to minimize the other. Then we have what we call clear voluntary attention.

At other times, the part played by the Self may be so unemphatic

[2] Cf. James, 'Psychology,' I, p. 416 ff.; 'Briefer Course,' p. 221. Sully, 'Outlines,' p. 80. Ribot, 'Psychologie de l'Attention.' Stout, 'Groundwork,' p. 50; 'Analytical Psychology,' I, p. 240 ff.

that it altogether escapes our notice. Then we are likely to say that the stimuli from the environment, or their resultants, force our attention without any self-activity, and then the careless thinker speaks of the state as one of involuntary attention.

But it is clear, if our contention is justified, that, even where the forcefulness of the stimuli determining the emphasis is most extreme, there must be some element of efficiency arising out of the Self, which in some measure determines the special form in which the emphasis appears. This point will appear of importance in the next article of this series.

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DISCUSSION

ANSWER TO PROFESSOR PIERCE

THE experience described by Professor Pierce in the JOURNAL of July 21 is, I think, a common one, certainly with myself, and at least not unknown to several others, as it has been put on record by Professor Stout, in his 'Analytical Psychology, Vol. I., p. 247: "In some instances the sensation itself never enters into attentive consciousness at all. Thus, in walking along a street, a name may suddenly come into my mind, and I may at first be totally unable to account for its intrusion; but on looking around I find the name printed in large letters above a shop window or on an advertisement board. Now the name as it first occurred to me was not visualized, but internally heard and articulated. It follows that the visual experience must have influenced the flow of mental images, while itself remaining in the field of inattention." In a footnote on p. 248 he adds: "The following additional example was communicated to me by Professor MacKenzie as this work was going through the press: "An even more striking experience (which very often happens to me) occurs in glancing over a large page (especially the page of a newspaper). One often becomes aware of some word in such a case which one finds oneself repeating internally. On investigation it sometimes appears that there is no such word on the page, but that one part of it occurs at one part of the page and another part at another. Here one has not only received an impression, but made a combination without having attended to it."

I have a number of such combinations recorded, one of which is unique, as the letters are in reverse order. On July 7, 1904, I was reading 'The Story of the Plants,' by Grant Allen. Glancing over

page 115, I got an auditory image of the word 'tipsy' in the quality of my own voice, as I always do when I read or write. As the word was foreign to the matter, I was curious to see where it came from. I found the letters in reverse order, or rather in a somewhat circular form, near the margin at about the middle of the page, in these words:

.....in *t*h e
.....earl*y* *s*p*r*i n g

An example from my own introspection, showing translation from sight to smell, is as follows: On July 31, 1903, as I was reading a book, I was conscious of a strong odor of ink. I remembered two minutes later thinking to myself, but not in words, "It must be some 'old-house' smell which is like ink." (I have frequently been able to analyze smells into their constituents, *e. g.*, a pleasant odor into two very unlovely ones). I had this thought, and went on reading when suddenly I looked at the white table-cloth upon which I had laid my fountain pen. It had become rumpled so that the muslin touched the point of the pen. Ink had soaked out, so that a spot was made about the size of a twenty-five cent piece. I said above that I had become conscious of a smell of ink. This is not saying that I had a sensation of smell. I believe, indeed, that the information was given me through the eye. The ink spot was visible out of the corner of the right eye, and I believe, so to speak, that my eye told my nose and my nose told me! When I saw the spot consciously, I could not smell it until I put my nose to within three inches of it. The olfactory quality vanished immediately when the spot was regarded visually.

I could give many examples of translation from visual impression to auditory image. Indeed, it is my usual process in reading to myself, and differs from the striking cases mentioned by Professors Pierce and Stout only in the fact that the impression remained in their cases below the threshold of attentive consciousness until after the image was attended to. In my silent reading I have observed that the attention vacillates between the visual impression, the regular auditory word images and the visual images aroused by them, in such a way that it can frequently be said that the visual impression is below the threshold of consciousness. Viewed in this way, there seems to be no difference in kind, only one of degree, between the translations noted by myself and others, and the normal process of silent reading in my own case. In reading silently I am, and I feel sure that others also must be, conscious now of one and now of another impression or image, visual, auditory or what not, and that

when I am conscious of one image I am totally unconscious, for a very brief time, of course, of anything else, impression or image.

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REVIEWS AND ABSTRACTS OF LITERATURE

An Introductory Study of Ethics. WARNER FITE. Longmans, Green and Co., 1903. Pp. xi + 383.

Professor Fite's work is apparently the outgrowth of a clear appreciation of the antinomy in ethics between idealism and hedonism: 'There seems to be a contradiction between moral ideals and the condition of practical attainment' (p. 277); between 'progress and happiness' (p. 327); between 'a constant strain toward the future' and a basing of efforts upon the 'immediate and actual state of things'; between 'a constant contempt for the present' and an 'actual enjoyment.' 'We must not only live in the expectation of a future good, but we 'must enjoy each period of life while it is here' (p. 327). "Progress considered alone commands us to aim directly at perfection without regard to the pain and struggle involved in the effort or to the possibilities of more immediate good which may be thereby sacrificed. . . . Do not stop to realize and enjoy, but press constantly on" (p. 328). "We find in ourselves two opposing tendencies, the one urging us to the practice of a higher and more perfect type of humanity, the other calling upon us to make ourselves happy and comfortable in the conditions of life as we find them" (p. 29).

The making of the fact of this moral problem clear is one of the chief endeavors and also one of the chief merits of the book. In regard to the solution Professor Fite is not so confident. "Now a complete solution of the moral problem is, according to my view, quite out of the question. . . . It is a mere empty statement to say, with popular philosophy, that the two sides of the problem are but 'the two sides of a shield,' or with Fechner, that they are related as convex to concave and are hence necessarily harmonious. . . . The assertion of harmony conveys no information. . . . But in the absence of a completely consistent system, and of a completely satisfactory solution of the moral problem, we may still, I believe, through a critical adjustment of the claims of the alternative theories, construct a reasonably satisfactory working hypothesis, such as will enable us to define our general attitude toward the different elements in the moral situation. It is such an adjustment that I have in mind in the remaining four chapters—a working hypothesis rather than a final solution" (p. 288). Professor Fite, therefore, is looking for a compromise. "We have to admit that there is a difference between the degree of attainment required for the greatest progress and that required for the greatest enjoyment of happiness. And since the requirements of a moral life include both progress and happiness" (a point which, as we shall see,

Professor Fite 'assumes') "any course that we may take will be of necessity a compromise. We have then to determine what sort of a compromise best meets the demands of both" (p. 331).

"The difficulty with the hedonistic calculation may be expressed by saying that the result does not fully cover what common sense understands by duty" (p. 154). "The hedonistic definition of the individual and his interests is obviously imperfect, and for this reason it can not serve all the purposes of a calculation of social relations. But, while imperfect, it furnishes, nevertheless, a useful method for the settlement of important practical problems" (p. 155). "It must be remembered that to a large extent hedonism furnishes the theoretical basis upon which commerce is carried on, laws made, government administered, and claims settled in courts of equity" (p. 156). "The hedonistic theory of social duties is approximately valid . . . for the region extending from the lower to the middle ranges of the moral scale" (p. 140). "The idealist offers certainly a more satisfactory account of the higher morality and of the point of view of more cultivated and conscientious men" (p. 261).

In a compromise there is a call for common sense rather than for a rigorous establishment and application of principles. The application of common sense in ethics is well carried out in the last chapter, which treats of the problems of government, of property, of honesty, etc.

There are, however, pages in which Professor Fite endeavors to give more than a compromise between accepting one's life as a means and accepting it as an end. "From the theoretical standpoint we are compelled by a necessity of our thought to assume that our world is ultimately a unity" (p. 287). "This *a priori* possibility of reconciliation is confirmed, as I shall endeavor to show, by an analysis of the opposing conceptions" (p. 290). "It will be remembered that hedonism was described as a clear but incomplete view, idealism as a more comprehensive but relatively obscure view" (p. 289). "When we attempt to make hedonistic conceptions comprehensive, we find that they acquire an idealistic meaning or at any rate if not a perfectly clear meaning, an idealistic flavor; and when we attempt to make idealistic conceptions clear, they acquire in a similar manner a hedonistic meaning" (p. 290). This seeking for a harmony takes him into what he terms the field of metaphysics and of evolution. One of the considerations which leads him to believe in a reconciliation without being satisfied with a mere compromise is that mechanism when elaborated approaches consciousness (purposiveness), and consciousness when analyzed becomes mechanical 'so that the conceptions of a world determined by mechanical forces and of a world determined by reason or consciousness are not logically contradictory but only empirically irreconcilable' (p. 325). "If we conceive the range of activity of any machine to be sufficiently extended to equal that of a human being we shall necessarily think of that machine as conscious" (p. 291). "And when we have to do with an activity so vastly complex and adaptable as that of a higher animal or human being the association of consciousness with the activity is no longer merely involuntary but inevitable and necessary. In a word, an activity thus adaptable becomes

ipso facto a conscious activity" (p. 294). "It appears, then, that there is no ultimate contradiction between the mechanical and teleological views of human life. A mechanism with the high degree of organization shown in human life must necessarily be conceived as conscious" (p. 295).

Professor Fite himself states the natural objection to this view: "Let your machine be never so complex, it is still nothing but a machine, and consciousness never so simple is still consciousness"; and he meets it merely by a reaffirmation of his belief. "This it seems to me is the crucial point of the argument. . . . When we take these structural modifications into account we find, as it seems to me, not only that we can conceive a mechanical object to think, but that it becomes inconceivable that a mechanical object of so high a degree of complexity should not think" (p. 292). "As a machine becomes more complex as a whole and more adaptable to varying conditions, it becomes also more complex and adaptable—in other words more *sensitive*—in its individual parts" (p. 293).

Passing from the mutual approach of mechanicalism and consciousness as an indication that we can expect between hedonism and idealism not only a compromise but also a harmony, Professor Fite finds as a second indication, the fact that happiness and self-realization mutually approach; as a third, that the egoism of the older political economy when developed approaches the altruism of the humanitarian, so that 'both alternatives' (of hedonism and idealism) 'must be used as regulative hypotheses.'

In Chapter XVII. evolution, defined as 'a constant process of reorganization, looking to a wider range of activity' (p. 308) is also brought forward to point to a real reconciliation between idealism and hedonism. Evolution, however, merely points to the reconciliation, and does not bring it about for the ideal changes as fast as realization is achieved. The conflict is indeed a necessary factor in life (p. 318). "In thus insisting on the positive character of the moral conflict the view presented here differs both from the optimistic view (Professor Dewey's for instance) which regards the moral conflict as a mere appearance, and from the pessimistic, which regards it as a hopeless contradiction" (p. 319). The question marks which come up in reading these quotations are evidences of Professor Fite's candor and of the suggestiveness of the book. We might indeed ask whether with *nirvana* for an ideal, or the *Verneinung des Willens,* we could believe in a reconciliation with hedonism. When we find him 'assuming that the world progresses' (p. 326), we might ask whether a psychological definition of the good might not be of help in his discussion. Another question might arise regarding his position on determinism when in this part of the discussion we find him identifying mechanicalism and determinism with hedonism, while earlier in the book (p. 104) hedonism stands for contingency as expressed in the Lamarckian theory of evolution.

Perhaps, however, we have already given a wrong idea of the book by bringing into undue prominence those points which, for one to whom the book is not an introduction to ethics, are the more interesting. An

important feature of the book is the exposition of the hedonistic and idealistic systems in ethics from the standpoint (1) of their principles, (2) of their goal or purpose, (3) of social theory and (4) of philosophy. In this connection special mention should be made of the clearness of style and of the unusual excellence of the paragraphing. A few quotations may indicate some of the points brought out.

1. As to principles: "The Hedonismist's theory of conduct is based upon the fact that happiness and freedom from pain constitute ultimately our sole object of desire" (p. 38). His method 'is that of quantitative comparison or calculation' where there is a 'fixed' 'objective standard' which may be 'expressed in terms of simple units' (p. 40 ff.). Stuart Mill's contention that the measurement is not 'by quantity alone but also by quality' is not valid (p. 52 ff.). Idealism, on the other hand, is based either upon 'perceptional,' 'esthetic' or 'dogmatic intuitionalism,' or upon 'rationalism' (Kantian practical philosophy), or else upon 'self-realization.'

2. As to goal or purpose: To the evolutionary hedonist 'pleasures are the requisites for survival'; hence the preservation of life is the purpose; and although Spencer argues for measurement of life in terms of breadth, 'we must conclude that the only criterion which a hedonist may consistently adopt for the measurement of the quantity of life is that of length' (p. 68). On the other hand, the rationalistic idealist is indifferent to the ends attained by his conduct, provided only that his conduct be self-consistent.' But 'the introduction of the conception of purpose' makes 'the idealistic theory' . . . also 'an evolutionary theory' (p. 207), where personality is emphasized and the goal is 'the realization of the purpose implied in the capacities of one's nature' (p. 197).

3. From the standpoint of social theory: "According to the later hedonists, my immediate motive for considering the welfare of society is a feeling of sympathy with the aims of my fellow men. . . . The original (and still the real) motive is that of self interest" (p. 78). According to the idealistic view, "a completely developed individual—one in whom all latent capacities had been brought to actual expression—would be completely identical with the self or mind of society. If Peter and Paul were completely self-conscious their interests and their selves would be absolutely harmonious and identical; they would be no longer two persons, but one" (p. 214). "The individual in the idealistic sense is the organized expression of special functions and capacities" (p. 219). "Briefly expressed the idealistic society is an organism" (p. 220).

4. As a system of philosophy: The hedonist's standpoint is that of external observation; "the idealistic standpoint is the standpoint of self-consciousness" (p. 228). The hedonist's method of definition and his criterion of reality is that of physical science; "the idealistic method is the teleological method which explains the peculiarities of objects by reference to their purpose as distinct from the method of exact science which explains them by reference to their mechanical structure" (p. 228). "The hedonist's psychology is that of the associational school" (p. 97). The

hedonist 'chooses as his type of human activity that which is relatively automatic' (p. 231). The idealist's view is that of the 'apperceptionists' (p. 231); he 'chooses the process of deliberation and voluntary decision as his type of mental fact' (p. 230). In biology hedonism holds to 'the Lamarckian side' (p. 104), while idealism accounts for evolution as a result of 'the constitution of the germ plasm,' the school of Weismann (p. 235). In cosmology hedonism in its more extreme aspects 'affirms that consciousness as such has no real existence' (p. 108). "The idealist, to the extent that he is similarly rigorous, goes equally far in the opposite direction" (p. 239), and holds consciousness to be 'finally the one principle determining the activities of the world as a whole' (p. 240).

The first thirty pages of the book, where the introductory material is frequently thrown into the form of questions, serves well the double purpose of indicating the later treatment and of stimulating interest.

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Kants Lehre vom Glauben. Eine Preisschrift der Krugstiftung der Universität Halle-Wittenberg. Von ERNST SÄNGER, Ph.D. Mit einem Geleitwort von Professor Dr. HANS VAIHINGER. Leipzig: Verlag der Dürr'schen Buchhandlung, 1903. Pp. xii + 170.

This monograph is a painstaking and thorough study of the Kantian doctrine of faith from the sources in Kant's own writings, which are exhaustively investigated in their whole extent, beginning with the pre-critical treatises and ending with the letters. The aim of the author is purely expository. Hence he confines himself to the historical method of treatment, offering here and there only so much of interpretation as may serve to bring out the development and the meaning of the Kantian positions, and by way of criticism admitting none but criticism of that 'immanent' sort which springs from the accurate statement of the various formulations of the original doctrine. Dr. Sänger's work, therefore, is rather a compilation than a substantive discussion of Kant's moral philosophy, but a compilation of a very exact and valuable kind. If he has not endeavored to contribute to the movements of vital importance which have followed from the effort of Kant to furnish morals and religion with a new and impregnable foundation, he has successfully accomplished his more modest purpose of completely and precisely exhibiting the classical passages in which the Kantian theory found its original expression. So that his results constitute an invaluable aid to the many who still are seeking, now to estimate the doctrine of practical reason at its real worth, now to utilize the views which Kant defended as the basis of their own conclusions. The importance of inquiries of this type is further indicated by the very suggestive 'Geleitwort' of Professor Vaihinger, to whom also Dr. Sänger is indebted for the idea of his own work.

The account of Kant's doctrine falls naturally into three sections, of which the second, 'The Doctrine in the Critical Writings,' is by far the most important. In comparison with this, the first section, 'The Doctrine in the Pre-Critical Writings,' called for no more than a brief dis-

cussion; while the third, 'Die Lehre in Kants Nachlass,' is wrought out with greater detail than most readers will consider indicated, unless to prove the relative unimportance of the citations in question. The middle section, on the contrary, contains the substance of the treatise. Here the fidelity of the author in the execution of his task comes into full view, as well as his scholarly equipment for the work which he had in hand. With diligent care he has gone through the entire cycle of the critical treatises, both small and great, and has faithfully set down the references bearing on the principal subject, with brief expositions and summations added which facilitate the understanding of Kant's meaning and the comprehension of his theory in its connections with his philosophy as a whole. Such a discussion, of course, leads into the heart of Kantianism, and raises many of the principal problems of Kantian interpretation. Concerning these, agreement with Dr. Sanger's views was not always to be expected; perhaps it would not in every case be desirable. But it is not for such results that students of Kant will value his work the most. Its significance consists rather in its usefulness as a guide- and source-book for the study of the classical originals, and employed for this purpose it will be found to possess great merit.

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Notes on a Case of Successful Operation for Congenital Cataract in an Adult. R. LATTA. *British Journal of Psychology,* June, 1904, Vol. I., Part 2, pp. 135–150.

The author gives extracts from the pamphlet by Dr. A. M. Ramsay on a case of successful operation for cataract, and supplements the account with observations which he himself made on the patient some weeks after the operation. It is a case of a highly intelligent adult who had learned while still blind to walk freely about his native village, to work in the harvest field, and even acceptably to arrange bouquets of flowers for market. He seems to have relied chiefly on his sense of hearing, which was so acute that he could recognize persons by the sound of their respiration or tell when he passed an open doorway by the different sound of his own foot-fall. The flowers he identified and arranged by smell, having been told what ones would go well together. He does not think that he relied much on currents of air striking the face ('facial perception'), but mentions that in telling the number of persons in a room he had a sense of 'fulness' which seemed to come from some other sense than smell or hearing.

The patient, whose name was Carruth, had small eyes with lenses completely cataractous, irides natural, and a pronounced alternating convergent squint. He was 'unable to distinguish objects, although he could tell day from night, and could easily perceive a light and locate it accurately.' Before, and for some time after, the operation the eyes moved about constantly and uncontrollably. The two eyes were operated on a week apart, and the patient remained dazed for about ten days after the last operation. But he then began to make the visual acquaintance

of objects very readily. He began to notice colors at once, and, except in the case of green, could always recognize a color after having been told its name. With green he had more difficulty, and it may be that he is somewhat *photerythrous*. In artificial light he had as it were to learn the colors over again.

The observations on the patient's first visual perception of form were not searching. 'When asked to distinguish between a ball and a toy brick, he looked at them attentively for a considerable time, his hands meanwhile moving nervously, as if he were trying to translate what he saw by comparing it with an imaginary tactile impression, and then he described both correctly.' But Latta 'found that, before the cube and sphere experiment was made, he had had visual experience of the difference between things straight and curved.' Unlike Cheselden's classic patient, Carruth did not suffer from a visual chaos, and his difficulties were in identifying the new things seen with the old things felt, rather than in building up a consistent visual field *de novo*. Latta seems to ascribe this to the maturity of the patient, his organized 'pre-visual experience.' But this experience was in fact merely pre-operational, for if before the operations Carruth could by means of his eyes 'easily perceive a light and locate it accurately,' it is obvious that the operations did nothing more than to give him much clearer retinal images. His visual space was already well organized. His subsequent experience was merely a process of refining his visual discrimination, and for this reason throws little light on the theories of space-perception. The faculty which Carruth did not have already organized was that for perceiving depth, but the development of this, if it ever did develop, was not investigated.

Carruth soon lost the power to move about confidently in the dark. He could call up visual images somewhat less than a month after the operations, and some six months thereafter his dreams seem to have been mainly visual. Even in his blind state he believes that he never experienced an odor in a dream.

On the whole, this paper is a somewhat desultory clinical report of slight importance in itself, and interesting only when put alongside of the earlier cases of successful operations on the blind.

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Retinal Local Signs. WALTER F. DEARBORN. *Psychological Review,* July–September, 1904, Vol. XI., Nos. 4–5, pp. 297–307.

Dr. Dearborn sets out to cast light experimentally on that one of Lotze's three hypotheses regarding local signs, which says that "the stimulation of each point, through an 'interweaving' of the nerve fibers from the surface of the retina and the ocular motor nerves, causes an eye movement definite enough to bring the fovea immediately to the point of excitation." It would follow from this hypothesis that the local sign of any such excentric point on the retina will be the kinaesthetic feeling of the eye movement (or perchance the feeling of innervation, or possibly both together) through the angle subtended by the arc from this point

to the macula. And if this is true, it must follow that the power of space discrimination of the retina can be neither more nor less accurate than these eye movements (or their corresponding innervations) which are made in order to bring the stimulation of any excentric point on to the fovea. But Dodge and Cline have already called attention to certain errors in the immediate fixation of excentric visual stimuli. The author, therefore, proposes to compare the size of such errors in movement with the spacial discrimination of the same excentric points, that is, their threshold for twoness and their threshold for least perceptible movement.

Dr. Dearborn finds that both these threshold discriminations are always much finer than is the ability to move the eye so as to bring an excentric stimulation on to the fovea. Thus in one subject the error of movement in bringing the stimulation of a certain excentric point on to the fovea was 1° 48′, whereas the threshold for twoness at that same excentric point was between 28′ and 41′, and the threshold for perceiving movement was but very little over 5′. The results are, therefore, adverse to the Lotzean hypothesis.

This is a careful and thoroughly intelligent piece of work. It is to be remarked, however, that we have here the same difficult problem which has come up in the experiments of Müller and Schumann on lifted weights, —that of the relation between the idea (reproduced muscle sensation, feeling of innervaton, or whatever it may be) which precedes the movement, and the muscle sensations which later report what the movement has actually been. Also the fact that the threshold for twoness on any excentric region is so different from the threshold of perceived movement on the same region, shows that the situation is otherwise exceedingly complicated. Doubtless, however, Dr. Dearborn is amply justified in concluding that the Lotzean hypothesis in its primitive form does not adequately explain the facts.

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Aristotle's Posterior Analytics. JOHN WATSON. *Philosophical Review,* January and March, 1904, pp. 1–15, 143–158.

In these two articles, Professor Watson has given an abstract of Aristotle's *Posterior Analytics,* a work which, he says, 'has had an influence upon the history of human thought out of all proportion to its length.' In what it aims to do, the abstract is admirably successful, presenting concisely and with perfect clearness what in the original is not open to systematic interpretation except for careful reading. Apart from their excellence as an abstract, the two papers, if we mistake not, would seem to be a kind of sign of the philosophical times in America; for the fact that articles which, instead of being commentary for Aristotelian scholars, pretend to be nothing more than a barest outline of the *Posterior Analytics,* should appear in a leading American philosophical journal, seems to point to a widespread lack of first-hand knowledge of Aristotle's treatise. Professor Watson's articles are timely if this inference is justifiable, and they should be effective in helping to 'revive' the *Analytics* on this side of the water.

The abstract is especially excellent in its right proportioning of Aristotle's treatment of the deductive and inductive phases of demonstrative reasoning. Without arguing the point, that is, merely by a faithful reproduction of the thought of the *Analytics,* Professor Watson shows how fundamental for Aristotle induction was, and yet how, for him, it never could be the completing process in scientific knowledge. Science is the knowledge of the cause or ground (*τὸ διότι*). Induction can only, at best, present us with the fact of invariable concomitance; it can not itself pass to the causal conclusion of 'absolute invariability,' to *τὸ καθόλου* in the strictest sense. Thus it merely supplies the material for the intuitive causal conclusion of reason (*νοῦς*). As such, however, it is indispensable. How the transition is made from the bare presentation of invariable concomitance to causal concomitance is a question that Aristotle answers by the doubtless unsatisfactory appeal to *νοῦς*. Professor Watson, in one of his very few comments, says in this regard: "Though it can hardly be denied that the transition from invariable concomitance to absolute invariability is hard to justify, it must be said, in defense of Aristotle, that his doctrine is based upon the principle that nature is not a sphere in which pure contingency prevails, but is on the whole subject to law. This, indeed, is a presupposition for which Aristotle can supply no adequate justification; but granting its truth, it is natural to suppose that when by induction we have discovered certain invariable conjunctions, the mind is able to seize upon the universal principle which these conjunctions suggest." No doubt the Aristotelian theory of *νοῦς* as, in its knowledge of primary principles, a *ἕξις*, or capacity, is unsatisfactory because of its utter vagueness, yet it marks the important effort made by Aristotle to give due weight not only to the empirical processes but also to the obvious, and indeed logically necessary, intuitional grasp of principles. Professor Watson gives a very excellent summary of Aristotle's rather obscure account of definition, as well as of his important distinction of the various meanings of universality, and of his much-discussed last chapter of the treatise. In reading these articles, one wishes that Professor Watson had not, in order to make his work more easily effective, passed so lightly over difficulties of interpretation and theory with which the *Analytics* are replete. But perhaps the sacrifice of detail to the emphatic outlining of the whole must here be allowed justifiable.

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL REVIEW. Article Section. May, 1904. Vol. XI., No. 3. *The Law of Attraction in Relation to Some Visual and Tactual Illusions* (pp. 143–178): Haywood J. Pearce. – Quantitative study of an illusion similar to that of Müller-Lyer: the apparent length of a straight line is increased by the presence of secondary straight lines

lying as prolongations of the primary line, but separated from it by vacant intervals. This influence increases with the length of the secondary lines as well as of the primary line, and with the nearness of the secondary to the primary, measured from center to center. The length of the vacant interval is also a factor, but when this is eliminated the exaggerating influence of the secondary lines obeys closely a law identical with the physical law of attraction ($f = Cmm' \div D^2$). These facts throw doubt upon most of the current explanations of the Müller-Lyer illusion. *The Relation between the Vaso-Motor Waves and Reaction Times* (pp. 179–185): WM. R. WRIGHT. – By recording a subject's reaction times and at the same time taking a plethysmographic tracing of his hand, it was found that the reaction was quickest during the period of constriction, and lowest during full dilation. *On the Horopter* (pp. 186–203): GEORGE T. STEVENS. – Helmholtz's determination of horopters rests on two false premises: he assumed the vertical meridian of the eye to be normally inclined, whereas it is truly vertical in normally set eyes; and he defined corresponding points in terms of retinal distances alone, whereas the important thing is the rotation angle of the points from the macula. The author presents a fresh determination of the horopter for several positions of the eyes. If, as is very common, the eyes are not properly set, strained positions of the head result from the effort to secure a satisfactorily placed horopter, and various ailments ensue. *The Logical and Psychological Distinction between the True and the Real* (pp. 204–210): C. L. HERRICK. – Current confusions in the use of the terms 'real' and 'true' can be eliminated by aid of the dynamic or functional philosophy, according to which the real is the primary, immediate datum, partaking of feeling more than of knowledge, while the true is that which is known to stand in mutually consistent relations with other elements of knowledge. *The Period of Conversion* (pp. 210–216): G. A. TAWNEY. – Methodological criticism of recent studies of conversion and existence, especially on the distinction between conversion in general and conversion to any particular religion. The former is experienced by every normal person in adolescence. *The Genetic Progression of Psychic Objects* (pp. 216–221): J. MARK BALDWIN. – A schematic tracing of the process of development of interest, attention, control and other 'modes' as associated with the different grades of objects from objects of sense and memory up to the objects of scientific moral and esthetic consciousness. Emphasis is laid on 'fancy objects' and 'play objects' as essential stages in this development. Notes: *On the Attributes of Sensation* (pp. 221–222): M. W. CALKINS. – Dualism is not properly an attribute of sensation. *Editor's Note* (p. 222.).

REVUE PHILOSOPHIQUE. June, 1904. *L'Education de la Mémoire à l'École* (pp. 569–586): J. J. VAN BIERVLIET. – Do the humanistic studies make better professional scientists? This and like questions should be decided by statistical study of how special faculties can be trained. The author's system of memory-training is expounded. *La Logique des Sentiments* (pp. 587–611): TH. RIBOT. – This is a study of

emotional reasoning, whose terms are value-concepts, whose principle is finality. It seeks what will bring success, not what is true, and is careless of contradiction. *Ce que devient la Logique* (pp. 612–625): A. REY. – Logic should study first the modes of thought employed in every branch of knowledge. It is based upon the history of science, and forms part of sociology. On it stands the art of logic, or the practice of reasoning correctly in every region of investigation. *Revue générale: quelques Publications recents sur la Morale* (pp. 626–654): J. LEGOND. – Among the seven books reviewed are G. E. Moore's *Principia Ethica,* Schiller's *Humanism,* Fite's *Introductory Study of Ethics. Analyses et Comptes Rendus:* H. Höffding, *Philosophische Probleme:* L. POITEVEN. H. Parenty, *Les Tourbillons de Descartes et la Science moderne:* A. REY. L. Laberthonnière, *Essais de Philosophie religieuse:* L. ARRÉAT. A. Dorner, *Grundriss der Religionsphilosophie:* J. LEGOND. M. Pelletier, *L'Association des Idées dans la Manie aigue et dans la Débilité mentale:* J. ROGUES DE FURSAC. P. Rossi, *Les Suggesteurs et la Foule:* G. L. DUPRAT. Ossip-Lourié, *Le Bonheur et l'Intelligence:* L. ARRÉAT. O. Weininger, *Geschlecht und Charakter:* C. BOS. K. Marbe, *Experimentellpsychologische Untersuchungen über das Urtheil:* FOUCAULT. Revue des Périodiques Étrangers. Livres Deposées. Nécrologie. Table des Matières du Tome LVII.

REVUE PHILOSOPHIQUE. July, 1904, Vol. LIX, No. 7. *Le sourire: étude psychophysiologique* I. (pp. 1–23): G. DUMAS. – The smile is not merely an attenuated laugh. It is a purely mechanical expression, affecting certain facial muscles because they are the most easily moved in the body. Everything able to increase the tonicity of these muscles produces a smile. Analogies in monkeys, dogs, cats and birds. *La finalité en biologie* (pp. 24–37): E. GOBLOT. – Finality exists whenever a series of events is directed in a definite direction. An efficient cause is also final when it contributes to such direction. The idea of an effort toward life is gratuitous and useless in biology. This 'natural' finality distinguishes the field of biology, and human volitions must be described in terms of it; not conversely. *La logique des sentiments,* II. (pp. 38–71): T. RIBOT. – Five chief types of 'affectif' reasoning: Sentimental reasoning, the least intellectual, as it operates in the sentiments of fear, love and jealousy. Unconscious reasoning, whether static or dynamic, as displayed in conversion and transformation. Imaginative reasoning, the most important; though itself sentimental, it is used in subordination to 'rational' reasoning; though based on faith, it is used in the discovery of objective fact. The reason of justification, a poverty-stricken and highly sentimental type, displayed in clinging to past beliefs. Composite reasoning, reflective as contrasted with the other spontaneous types. It is best exemplified in eloquence. Discussion; *La priorité de la philosophie des idées-forces sur la doctrine de M. R. Ardigò* (pp. 72–75): A. FOUILLEE. – Analyses et comptes rendus: Sabatier, *Philosophie de l'effort,* FR. PAULHAN. Gaultier, *La fiction universelle,* FR. P. REY, *Leçons élémentaires de psychologie et de philosophie,* G. RAGEOT. *Annales de l'institute in-*

ternational de sociologie, J. DELVAILLE. Bunge, *Principes de psychologie individuelle et sociale,* FR. PAULHAN. Groos, *Das Seelenleben des Kindes,* E. BLUM. Grasset, *Leçons de clinique médicale,* G. DUMAS. Grasset, *Le spiritisme devant la science,* G.-L. DUPRAT. Revue des Périodiques étrangers. Livres déposés.

REVUE DE PHILOSOPHIE. June 1904. *La Théorie physique, son Objet et sa Structure* (3e article) (pp. 643–671): P. DUHEM. – History of science shows that hope of explanation has led to disagreements in theories, while desire to describe faithfully has in general suggested discovery. Mach's attitude in regard to the economy of thought is traced in the history of thought. *Le Hasard dans les Découvertes Scientifiques* (pp. 672–678): F. MENTRÉ. – It was the doctrine of Cl. Bernard that all science originates by chance, not of set purpose; facts are thrust upon us from without and suggest a certain systematization to our minds. This agrees with the thesis defended in the preceding number. *La Littérature des Fous* (pp. 679–702): REJA. – What constitutes the work of art in literature is revealed in the writings of unbalanced minds, because here the logical and conventional motives are absent. Examples follow (*à suivre*). *Pour l'Histoire du mot "ἄπειρον"* (pp. 703–707): P. TANNERY. – Anaximander probably used this word to refer to that which can not be experienced (the apparent void). *Sur l'"ἄπειρον"* d'Anaximandre (pp. 708–715): H. GUYOT. – This term can not be exactly translated by one word. It is between the infinite of Aristotle and that of Descartes, a complex, confused idea. *Analyses et Comptes Rendus:* P. DuBois, *Les Psychonévroses et leur Traitment moral:* P. VIGNON. P. Sollier, *Les Phénomènes d'Autoscopie:* C. DE KIRWAN. M. de Wolf, *Introduction à la Philosophie néoscolastique:* COMTE DE VORGES. Périodiques. Bulletin de l'Enseignement philosophique. Nécrologie. Bibliographie. Chronique.

REVUE DE PHILOSOPHIE. July, 1904. Vol. IV., No. 7. *Sur le Matérialisme scientifique ou méchanisme antitéléologique, àpropos d'un récent traité de Biologie (fin)* (pp. 5–37): P. VIGNON. – The mechanical system, an analytical monism, neglects the specific activity of synthetic causes. We must return to the genuine Aristotelian inductive study of things, without preconceptions. Agnosticism is irrational, for though the essences of things and the absolute are not completely to be known, we do know the existence of the eternal first cause, apart from the moving material. *La littérature des fous; la prose (fin)* (pp. 38–50): RÉJA. – Many examples are given, in which, though there are present grace, force and even satire, the logical connection continually gives way to assonance. The worst afflicted turn to verse. *La Composition du Théétète et M. Chipelli* (pp. 51–63): A. DIES. – No clear case has been made for the double editing of the Theatetus. *Fénelon métaphysicien. Œuvres inédites (fin)* (pp. 64–89): E. GRISELLE. – Three unpublished works of which the first discusses how the essence of the soul can be thought, since will is not thought; while the others debate whether the essence of body is extension, in view of the doctrine that body has no essence, and of the

dogma of transubstantiation. *L'Intellect agent des Scholastiques* (pp. 90–92): V. BERNIES. – Further argument against its validity. *Analyses et Comptes Rendus* (pp. 93–110): J. Naujokas, *De Causa finali apud Anaxagoram, Socratem et Platonem:* C. HUIT. L. Favre, *Notes sur l'histoire générale des Sciences:* F. MENTRÉ. E. Picard, *Comment traiter l'enfant à l'École?:* F. MENTRÉ. E. Tavernier, *La Morale et l'esprit laïque:* C. BESSE. T. de Visan, *Paysages introspecties; poesies:* J. CHAURAND. Sommaire des Revues. Bulletin de l'enseignement philosophique.

BULLETIN DE LA SOCIÉTÉ FRANÇAISE DE PHILOSOPHIE. May, 1904. Séance commémorative du Centenaire de la Mort de Kant. *Les Harmonies de la Pensée Kantienne* (pp. 118–124): V. DELBOS. – The Critique of Judgment is the most interesting of Kant's Critiques, as filling the gulf between Pure and Practical Reason and giving a general *Weltanschauung.* Mechanism is inadequate to explain life, but finality includes mechanism. Nature and freedom, feeling and law, are harmonious. Though we can not know the absolute, we can know, do, and believe as much as we need. *Kant et la Mathématique Moderne* (pp. 125–134): L. COUTURAT. – Kant's distinction between logic and mathematics as conceptual and intuitional has been refuted by modern mathematics, which is conceptual. Intuition would never justify the universality of a geometrical proof. Number presupposes neither time nor space. Leibniz was more modern than Kant here. *La Morale de Kant et le Temps Présent* (pp. 135–144): E. BOUTROUX. – Kant's ethic is wrongly called abstract and non-social. Kant, in distinguishing duty from sensuous inclination, had to emphasize the universality of duty. The categorical imperative does not exclude the hypothetical, nor individual conduct, social motives. Present tendencies are just in harmony with Kant.

ZEITSCHRIFT FÜR PHILOSOPHIE UND PHILOSOPHISCHE KRITIK. Band 124, Heft. 2. *Zur Problem einer normativen Ästhetik* (pp. 125–7): W. WAEZOLDT. – The various views briefly contrasted. *Energetik, Mechanik und Leben* (pp. 128–154): E. V. HARTMANN. – As to the relation of vital autonomy to the laws of energetics and mechanics, after close analysis of the terms involved, two views remain possible. Life is not a force in the mechanical sense; but vital force as a regular tendency and power superposed on inorganic laws is valid in qualitative energetics. The depreciation of the energy of the universe makes perhaps improbable but not impossible the infinite duration of life at its highest spiritual condition. *Zur Kritik des psycho-physischen Parallelismus* (pp. 154–172): M. WENTSCHER. – Parallelism in the monadological form that Paulsen defends leads to difficulties that render it inferior to the theory of interaction as advocated by Busse. But a truly monistic parallelism might get over the difficulties. *Über das religiöse Gefühl* (pp. 173–200): G. GERBER. – Religious feeling is gradually ripened

by experience of the gravity and suffering of life. Its basis is the sense of self as the cause of outward effects. It arises from the loss of this sense of self in that of the power of a foreign cause, when we attribute to that cause the unity attached to the self. Monotheism is the product of critical thought. *Die Schopenhauer-Porträts* (pp. 201–208): C. Töwe. – A classified list. *Recensionen* (pp. 208–236), including the following: Lipps, *Das Selbstbewusstsein; Empfindung und Gefühl:* Dürr. W. Wundt, *Gustav Theodor Fechner. Rede zur feier seines 100 jährigen Geburtstages:* O. Siebert. S. Saenger, *John Stuart Mill, Sein Leben und Lebenswerk:* H. Reichel. E. Storch, *Muskelfunction und Bewusstsein:* Dürr. M. F. Scheler, *Die transcendentale und die psychologische Methode:* H. Bromse. E. Naville, *Les Philosophies negatives:* E. Dutoit. R. Stammler, *Die Lehre van dem richtigen Rechte:* H. Reichel. Notices. New Books. Periodicals.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE. May, 1904, Band XXVIII., Heft 2. *Egoismus und Altruismus,* II. (pp. 123–165): D. Gusti. – Definitions of fundamental terms. Individual must give way to social psychology in the solution of the question. Self-love, not self-seeking, and sympathy, as the two basal types of impulse. Reverence as their synthesis. Comradeship more important than sex relations in the foundation of social life. The true standard of the moral will is the maxim, act so that at each instant you attain the maximum of your practical will. *Ein Neues Bevölkenungsgesetz* (pp. 167–191): F. Oppenheimer. – In the law of population as usually stated to-day, three quite different ideas are jumbled together, those of Malthus and Ricardo. The pessimistic outlook of those theories is opposed. *Schopenhauer und die wissenschaftliche Philosophie,* II., (pp. 193–230): C. v. Brockdorff. – Schopenhauer's relations to the bases of the exact disciplines. His criticism of the assumed omniscience of mechanics. He differs with the modern devotee of energetics in that even energy was to him mere appearance. There was a struggle in his mind between philosophy as an art and philosophy as a science. *Herbert Spencer und Albert Schäffle* (pp. 231–239): P. Barth. – Spencer failed to note more than the external synthesis of society. His ethics suffer from naturalism. Schäffle, though less original, keen and comprehensive than Spencer, supplements the service the latter rendered, in that he grasps the inner spiritual aspects of society. *Notices:* R. Hoenigswald, *Zur Kritik der Machschen Philosophie,* H. Voeste. L. Busse, *Geist und Körper, Seele und Leib,* J. W. A. Hickson. G. Vidari, *Elementi di Etica,* Fr. Orestano. And a dozen short notices.

Asturaro, A. *Il Materialismo storico e la sociologia generale.* Genova: libr. Moderna edit. 1904. 16 + 308 pp. 2.50 L.

Busse, L. *Die Weltanschauungen der grossen Philosophen der Neuzeit.* Leipzig: Treubner. 1904. 1.25 m.

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Gardiner, H. N. *Jonathan Edward's Sermons.* New York: Macmillan Co. $0.25.

Gerard, J. *The Old Riddle and the Newest Answer.* 1904. London: Longmans & Co. 5 s. net.

Huntington, Edward V. *Sets of Independent Postulates for the Algebra of Logic.* Reprinted from the *Transactions of the American Mathematical Society,* Vol. 5, No. 3, pp. 288–309, July, 1904.

Kahlbaum, G. *Monographien aus der Geschichte der Chemie, VII Heft. Jacob Berzelius. Amadeo Avogardo und die Molekulartheorie.* Leipzig: Barth. 1904. 8vo. 5 m.

Kakasn, O. *The Ideals of the East.* New York: Dutton. $1.50 net.

Oloff, R. *Die Religionen der Völker und Gelehrten aller Zeiten.* Berlin: Walther. 1904. 8vo. 3 m.

Rathlef, E. *Goethe pathologisch.* Riga: Jonck und Poliewsky in Komm. 1904. 8vo. .80 m.

Saintyoes, P. *La réforme intellectuelle du clergé et la liberté d'enseignement.* Paris: Nourry. 1904. 11 + 343 pp.

Schulte-Tigges, August. *Philosophische Proprädentik auf naturwissenschaftlicher Grundlage.* Berlin: Georg Reimer. 1904.

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Stephen, Sir Leslie. *Hobbes. English Men of Letters.* New York: Macmillan Co. 1904. $0.75 net.

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Sutro, E. *Duality of Thought and Language.* London: K. Paul. 6 s. net.

Taylor, A. E. *Elements of Metaphysics.* New York: Macmillan Co. 16 + 419 pp. 8vo. $2.60 net.

Veblen, Oswald. *A System of Axioms for Geometry.* Reprinted from the *Transactions of the American Mathematical Society,* Vol. 5, No. 3, pp. 343–384, July, 1904.

Windelband, W. *Uber Willensfreiheit.* Tübingen: Mohr. 1904. 8vo. 3.60 m.

NOTES AND NEWS

Professor L. Busse, of Königsberg, has been called to a professorship of philosophy at Münster, in succession to Professor E. Addickes, who has been appointed professor at Tübingen.

Dr. J. Burt Miner, during the past year instructor in psychology at the University of Illinois, has been appointed instructor in philosophy at the University of Iowa.

Dr. Burtis Burr Breese, now of the University of Tennessee, has been appointed professor of psychology at the University of Cincinnati.